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Paris, 17th February 2005.

Appl.N°10/508,967 (PCT/IB03/03315)
Dr.Y.Zagyansky, Entraide, 22 rue
Marthe, 75010 Paris France

Dear Sir, I did not receive the back acknowledgment of my registered letter (29 NOV. 04) (and even news after reclamation of 24 JAN.05) (see here copy of receipt). The received (by USPTO) Fax of 29 NOV.04- Receipt N°FA1-03-25855 from "CyberCube" had the content of this letter, except English translation of priority PCT/FR02/02583 (that is generally perfectly included in current Application PCT/IB03/03315, wherein I even used pages of its publication WO 03/084301). So here I am only RE-sending the yet (already?) notobligatory translation of priority (4 pages of translation at each sheet). To assure presence of all pages (with my standard way), I sign (by "special" blue) each page [at "verso" = side of sheet with later pages] with date of 17th Fev. 05 and with text of end of previous page and of beginning of next page. I begin from this letter, continue through all pages of translated priority and make the circle with this letter. Sincerely yours

Dr.Y.Zagyansky Supplement:

1. Copy of receipt of letter of 29 NOV.04 (at this page). 2. English translation of priority (PCT/FR02/02583).

Y.Zagyansky *Y.Zagyansky*

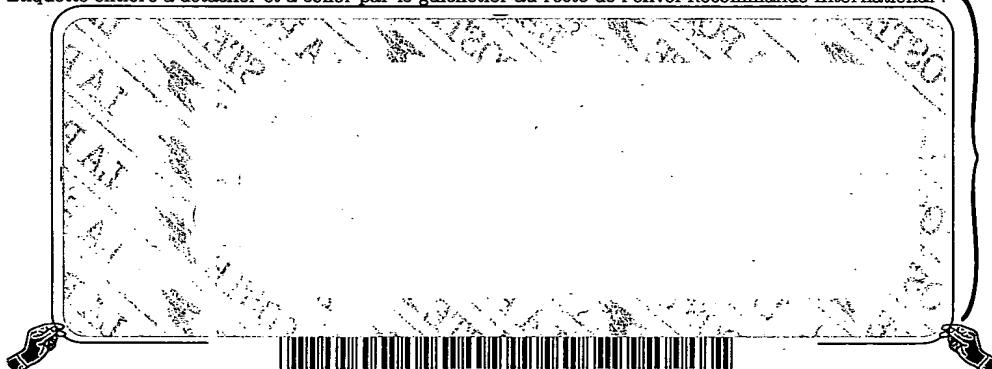
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VERSOS

Yufagun 17 Fev. 2005 Yufagun
17 Fev. 2005 Yufagun

first on end of page 18 "end of right"

beginning of P. 2 : PCT /P202/02583

New Physics confined by nuclear
closure "Laboratory"; searching by -

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FEB 28 2005

DOCUMENT PROCESSING
BRANCH

BANGS, BIRTHES OF GALAXIES, UNINTERACTING COSMIC RAYS.

CONSEQUENCES AS ACCELERATORS.

Specification.

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Technical field of invention. Invention concerns the global physical properties of matter (provable only from Cosmos) with confirmation of end of Einstein-Bohr Physics and its practical revolutionary consequences.

Part I. Light cannot leave Our Classical Universe: Global End of 2nd Thermodynamic Law.

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a) Registrable strong light intensities of wide spectra (since Big Bang), resting in Universe after re-excitations, are clearly unexplainable.

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According to numerous data, the presence of diffuse cosmic background radiation (present in several spectral regions; from radio waves until γ -rays, including micro, infrared, visible and ultraviolet waves [1-5]) is so strong that this energy "could be used to heat up all matter (where) the temperature would be greater than thousands of milliards °K" [6,7], that "remains one of the unresolved puzzles of cosmology" [7]. There is, for instance "strong upper limits to any angular cross-correlation between the CMB (cosmic microwave background) temperature and the extra-galactic X-ray background intensity" [3]. Evidently, the radiation of the discrete today sources is added to the background cosmic radiations; a significant fraction of the cosmic X-ray background (XRB) is the discrete sources largely due to the accretion onto massive black holes [8], and the observed AGN (active galaxy nucleus), that produce a large fraction of the hard X-ray background, logically is one of sources of the background radiation of sub-mm diapason [9], wherein the UV flux, from early formed massive black holes, can be the additional sources of the UV background intensity [10]. Such additions (less than 1/4), by discrete sources to the diffuse γ -rays fluxes in Universe, take place too [4].

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But the most spectacular radiation (of diffuse background) is CMB: exceptionally (not as other regions of spectrum), it is attested as the spectrum of Black Body with the temperature equal to

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2.76 °K ("the most perfect black body ever seen") [11] with totally isotropic radiation [12]. It is accepted that "a see of black body radiation" relaxed to the thermal equilibrium with suffi-

ciently hot plasma during period of primordial Universe. But "the homogeneous expansion of

primordial Universe causes the radiation to cool as in adiabatic process", when the interaction (of radiation) with matter was negligible" [13].

However, in reality, it is not the classical adiabatic process with the piston, where the counter-action force is infinitively weaker than that of action, and consequently, the energy of the work is not transformed into the kinetic energy of the piston. Here, oppositely: there is, justly, the very rapid Primordial Universe expansion with well diminished work, where the potential energy of the compressed matter is transformed rather into kinetic energy of such matter not only without cooling, but oppositely. Moreover, although they have the Planck spectrum, CMB photons are not in thermal equilibrium. The mean free path of photons in the Universe must be huge or else we would not see galaxies and quasars out to distances of thousands Mpc" [3]. Because of such enormous free paths, the great majority

of such light had to leave Our Universe instead of staying in such "cool" diffuse state (it means: too numerous re-emissions /including reflections/ with very powerful intensities de facto). Moreover, due to thermal effects of obtained (in situ) plasma, its spectrum is different from that of Black Body in vacuum [14] and the experimental agreement with models, structure of angular CMB spectrum with temperature is not exact [15].

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Consequently, one can already reason that the origin of the presence of the enormous diffuse light intensities in the Universe does not have any connection with spectrum of Planck of Black Body and the galaxies produce "the regions of WEAK (in CMB) emission of first plan (foreground), covering 20-30% of sky (contamination of CMB emission, [first plan]), conducting to changing of the value of general polarization is weak, in spite its strong own value" [16]. And, for instance, justly, only acceptance of Planck spectrum absence in CMB radiation, conducts, already, to interesting consequences [Refs. 15].

Moreover, classically, the Planck radiation law was certainly based on the experimental data obtained from measurements with the cavity radiation. But the relation, necessary for consecutive generalization (quantum energy of radiation is proportional to its frequency: other formula of Planck-Einstein) is the evident principal falseness [17], that already, itself only, eliminates the application of the empirical law (established only for the cavity) for more general utilization. It is shown clearly, that the presence of the strong intensities of the electromagnetic diffuse waves (light) of the large spectrum in the Universe asks another explanation.

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b) Real light deflection near the gigantic masses.

The light deflection near the gigantic Black Holes as those of Schwarzschild is well established:

Effect is net: the black hole begins to shine due to the star (galaxy) light, falling on it because of the influx with help of the "gravitational lensing" [18]. One detects the same influx with the CMB re-

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diation localized by Sun [21].

c) It is neutrino (and antineutrino) concentrations that decide light direction: complete light reflection from Universe borders.

Today, one knows already, that the gravitational lensing, as consequence of Theory of Relativity, does not exist because this theory is false [17,22]. But what is the origin of such light deflection near great masses? It is confirmed already, that the light propagation (and velocity value) [17] are determined by temporary transformation of neutrino (and antineutrino) with the moving front of the electromagnetic wave. Naturally, a stronger neutrino concentration guarantees a larger value of light velocity (for instance in vacuum, the neutrino concentration as well the value of light velocity must be stronger than in water).

But near gigantic masses, the neutrino concentrations (with electron mass [17]) are higher, that must produce the same effect of the refraction (as with increase of refraction index n , /to see, for example, also the classical spheres of Huygens/, that one, justly, observes, de facto, near Black Hole and the Sun [18-21]. Evidently, in absence of Big Bang neutrinos,

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the Planck spectrum, CMB photons are not in thermal equilibrium. The mean free path

at the extre-

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rior of the expanding Universe [17,23], the complete light reflection from the Universe borders (as from mirror) takes place, that must happen a number of times.

This is clear and simple basis of the presence of enormous quantities of all diffuse light (of all spectrum naturally) radiated since Big Bang in Universe. This in reason that CMB intensities, (only) from the opposite (diametrically) directions of the sky points, are identical ("this is an obvious fact") [24].

In each direction there is own level of absorptions (of spectrum waves) by such or such galaxy or other cosmic objects [25]. Consequently CMB waves have blue shift in the direction to the observer [15]. Naturally, this Universe, that is not close, can

be presented as the closed one to satisfy particular observations [26]. But this approximate replacement does not have to be well solid. For instance, after profound works [27], one cannot see "ghost" Images of the radio sources, expectable at positive "space curvature" ("closed" Universe) and positive cosmological constant.

Part II. Different consecutive Big-Bangs and Galaxies Origin: exemplary convergences.

a). Universe mass is essentially greater than that the Critical.

The last data (on the Supernovae), accepted enthusiastically by community, propose oppositely, that "expansion of the Universe has been accelerating rather than decelerating in the recent past" [28-30] and moreover "the matter density of the universe.. is a factor 3-4 less than required for closure" [28]. Fortunately, such new triumphing information is too far from the verity, however clear. After proven value of mass of neutrinos and antineutrinos, equal to that of electrons and positrons [17,22], one can easily calculate that such neutrinos (and antineutrinos) represent even more than 99.9% of the Universe mass. If to accept, the following calculations: if the neutrino has the mass of .5 eV only, then 30% of the mass in Universe is in the form of light neutrinos [3]. Such neutrino and antineutrino mass values are, again, well confirmed by the spontaneous orchestra of the new data, concerning the connection between the Supernova explosion and GRB (gamma-ray burst - SII-di). Universe, dominated by neutrinos, was predicted yet by D.Schramm and G. Steigman in their prize work [23].

b). Imminent Universe collapse.

Consequently, after decrease of the expanding speed until zero, the Universe will begin to contract. But, again, due to mechanism, according to which the light (with energy of electro-magnetic waves) cannot leave the Universe, the global entropy will begin to diminish (surely, there is no entropy death and 2nd Thermodynamic Law is globally invalid!). Consequently, in the critical moment of contraction, there will be the explosion due to elevated concentration of electro-magnetic waves. But in which moment will this explosion take place? Until which molecular, atomic fragments or particles will matter of Universe explode after 1st strong explosion?

c). "Our" Big Bang: explosion of Universe was until atoms of hydrogen, helium (and some traces of atoms of Li, Be and B).

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Fortunately, all traces do clearly exist (and even in strong relief). There is the existence of the universal abundance of the primordial Helium (25%) (and also the traces of deuterium, lithium, beryllium and boron without other heavier elements) [31-37]. To explain this, they imagined the "Big Bang nucleosynthesis" (BBN) with "the creation of light nuclei, deuterium, He-4 and Li-7 during 1st minutes of Universe" [33, 36]. and again, one imagines this nucleosynthesis as having the aboration, without reactions, producing the heavier elements from carbon, that takes place during the stellar nucleosynthesis, "responsible" for the formation of the totality of other nuclei, from carbon until uranium [36]. To explain the presence of the traces of light elements between He and C, they introduce, already, the process of spallation of the heavier nuclear species (C-N-O) by collision with the easy species (H and He) [37]. For instance, Li must exist since beginning because there is the abundance of Li in the galactic gas during all time of the Universe existence [35].

But justly THIS process of spallation of the heavier elements must take place during the Universe explosion to obtain the easier elements de facto: H and He principally. It was, justly, the process of "Our" Big Bang! The elements as Li-Be-B had to be produced also after this explosion of Big Bang with spallation but with weaker quantities and, again, these elements are more fragile [31, 37].

One sees that there were no other MORE POWERFUL successive explosions in the more contracted Universe state during "Our" Big Bang because of the presence, of such masses of light elements since "beginning" of Universe. Evidently, this temperature of explosion was weaker than that necessary to "recover" the masses of neutros (black holes, neutrino ["neutron"] stars) by reactions, that are opposite to those of the neutrino creation [2] (at enormous excess already of concentrations of neutrinos, antineutrinos and neutros).

Consequently, after this great explosion of the heavier elements, their transformation into hydrogen and helium principally, the great masses of Black Holes near the centre of explosion and farther (evidently, yet moving to the mass centre of Universe) had to meet the powerful currents of the hydrogen and helium masses after explosion. And justly, this process proves the Galaxies origin, never imagined by anybody since Ptolomee and Copernik, Galilee, Newton and Kepler.

d). Galaxies Origin and star movements: AGN with Black Holes as centripetal force.

Naturally, the creation of stars due to activation of synthesis reactions (from produced hydrogen) was done only at the beginning of Explosion. This explains the same accepted grand age of elliptical Galaxies, much higher Sun age - absence of the star creation even at TOO favorite conditions near titanic Black Holes [22], the very astonished polarization of galaxies within disk and the origin of rotational movement of stars. Naturally, the time of star life is approximatively inversely proportional to square of their mass [38] (evidently, it depends also on the site of star creation). And justly, the gigantic less luminous masses (like massive Black Holes) are present (insistently) at mass center of all galaxies (so called: AGN- active galaxy nucleus) [39-42].

Naturally, the currents of hydrogen (and lithium) were not symmetrical relatively Black Holes.

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Yuri Nogod
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end of account. Conference (PCT/FR02/01523).

beginning p. 5, and the movement in"

and the movement in one direction had to win after counter-currents, that is the origin of the

fact that, justly small quantity of galaxies does not have "signes of damages and violences" and there are even very unregular galaxies [42b]. Analogically to the case of formation of Solar

System [22], the currents of hydrogen (of stars), that are "higher" ("lower") than principal plane of

Galaxy of rotation (like spiral galaxy) but parallel to Galactic plane, because all currents are

[force of attraction between the AGN and the current of stars], directed to the central plane (of parallel to the explosion direction), will have the force [vertical projection of the gravitational

famous disk) in creating the Galaxy! Consequently, there are the clouds with hydrogen with strong shocks that are more prominent and are found at more than 2 km/sec.

[4c], that must take place due to the "higher" (or "lower") original direction of these currents.

(like Pluto's orbit). Evidently, the particles of obscure matter move with speeds comparable

xies with corresponding energy (TeV/EeV). Procreation "photons" of high energy [41] with those focal and circular [41], and the protons move with electrons around AGN of galaxy.

5 Visibly, the difference between the velocities of rotation of the ensemble of the constituents

[...galaxy at the center of mass [one, logically, to the different conditions of "meeting between Black Body (AGN) and the constituents after explosion] is significant in spiral, elliptic

and irregular galaxies [40,42].

Logically, the quasars are "constructed" on the extinguished galaxies, that were already formed before "Our" Big Bang with relatively weak Black Holes. There are the most luminous

objects of Universe [40,42]: the luminous masses of currents after explosion are added to

These RE-formed around ancient AGN and quasars are linked geometrically avec galaxies

with relatively strong red shift: $z[\text{mean}] = 2.3$ and never blue shift [40, 42]. Normally, after his mechanism, one must estimate: if the quasar has more luminous matter after explo-

ion (and consequently its AGN, unmotile at beginning, is more powerful), it is propelled.

more rapidly. And justly, the most luminous quasars have the most strong red shift [40,42].

We must consider that Seyfert Galaxies (which are closer to us) are the galaxies, preformed.

are 100 times less luminous than the rest [40, 42].

more powerful Big Bang takes place when there is no (almost) heavy elements; only neutrino masses.

The stars from hydrogen and helium transform these constituents into (finally) the heavier elements and into black holes or "neutron" stars, composed of neutro [42a]. Evidently, if, finally,

heavy elements (after these star explosions) are all (almost all) transformed into neutro, the "1st" weaker explosion will not take place and Universe will continue to contract with critical (emission) increase to have the same "decreasing" behavior.

ture increase to have the capacity to inverse the reaction of Supernova explosion [17-22].

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tury [17], is well confirmed by one... explosion (very recent) of experimental publications. Naturally, the most powerful Supernova explosion must begin by creation of γ -rays with neutrinos and antineutrinos ("annihilation" of electrons and positrons) [17]. And justly, one confirms well today that there is the association (connection) between explosion of Supernova and GRB (gamma-ray burst) [43-48] that (both) are more spread at the regions with strong shift ζ (mean) = 1.5-2 "afterglows". By the way, for instance, the correspondence between several neutrinos and antineutrinos of powerful Supernova 1987A, visible by naked eye and the visible light must be the real coincidence because the directions of these neutrinos do not correspond to this source and moreover, this is even naive to consider the velocities and of light as almost equal (probability is almost zero!).

Consequently, such Big Bangs must be much more powerful. Moreover, all stars are extinguished in the moment of Big Bang: there are no stars in Our Galaxy that have 20 milliard years [42]. And justly, the most powerful cosmic rays from Other Universes [17,22] can be associated with such Big Bangs (duration in time corresponds to dispersion of velocities). Justly, again in confirmation: such too powerful "rays" exist today in Our Universe [17,22] and "there is no correlation between the directions of (their) arriving and their optical sources that can be identified clearly" [49]. The native cause (distance close to us) but without ANY serious identification) of the absence of cutoff of protons of cosmic rays of such titanic power does not explain the origin of these rays at less than 50 mpc from us. [49]. This absence of cutoff is due to their speed, (much) higher than that of light, where there is no interaction between the proton and electric (and magnetic ("magnetic")) field of substances on the pathway because these dynamic fields (with frequent re-creation of waves of very frequent transformations of neutrinos into electrons) have "only" the velocity of light [17,22]. The fact of non-interaction, justly proves the DYNAMIC nonpermanent "frequently temporary" character of the electric fields: the protons [50,51] ... of the cosmic rays pass the Sun (well charged) and the Moon [51,53], but do not pass even several meters in the water [54], confirming TCO evident evidence of the value of their velocity higher than that of light (and their existence!) and again evidently, the definitive end of Einstein-Bohr Physics [17,22].

The inexplicable fact, that certain radio quasars and also simple radiogalaxies are the sites of the "superlight" velocities, wherein the spectrum components are separated with velocities higher than those of light (according to red shift value) [42], confirms again this chain of the proofs of intensive radiation of gamma-rays and the perpendicular electric fields, which remove the deflections and positions, created from neutrino and antineutrino interactions.

Part III. Practical consequences of invention.

Evidently such developed, well proven, mechanism of Big Bangs, permits to create very elevated and permanent temperatures. After having the classical intensive radiation in the volume, limited by the exterior or absence of neutrinos and antineutrinos (with help of very intensive radiation of gamma-rays and the perpendicular electric fields, which remove the

one can diminish this volume, initiating the Universe contraction (Parts I and II), that will permit to obtain the well elevated concentration of electromagnetic energy in very small volume with very elevated temperature.

- The total absence of interaction (electro-magnetic) of more powerful cosmic rays ("rays") with matter (Part II) and very rare direct interaction (knocking with relatively very small nucleus; at projection on the plane, perpendicular to "rays", its area is too minuscule) of these particles ("rays") with the matter, already attest that these very rare knockings of the radioactive matter (on their path) define the level of radioactivity, discovered by Becquerel. Evidently, the stability of nucleus (or rather: minimal critical level of energy of "rays", from which there is already the switching of nuclear reaction of radioactivity) determines the period of the radioactivity because the level of cosmic radiation is similar everywhere in space, and time. Consequently, the very thick layers of very heavy element (very dense with big nucleus) like uranium or the matter of new particle neutrino, the most dense matter of "neutron" stars [17,22], can diminish the level of cosmic rays and consequently change the period of radioactivity! It is very important to obtain (production) very unstable elements (at price, at thousands times more than gold) like mendelevium (atomic number is equal to 101) or the rare isotops, that are produced during the chains of radioactive reactions of decompositions. Again, the discovery of the nature of "spontaneous" radioactivity (that was the beginning of new era of the science) [always spontaneous for all great physicians], closed in false space of Einstein-Bohr is already extraordinary as such!

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the obligatory work against New force discovered by me [WO 99/56288, WO 00/52989]. So "Very simply" In increasing the concentrations (of neutrinos and/or antineutrinos) (with beams) in perpendicular directing magnetic field, one increases proportionally the speed.

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P.S. Evidently, the rays having stronger velocity than light (as cosmic) can interact more massively with substance if to increase the concentrations of neutrinos and antineutrinos near these substances (for instance with the matter of neutro, the most dense in Universe [17-22]).

because the light velocity and also the velocity of propagations of electro-magnetic fields must increase with increasing of concentrations of neutrinos and/or antineutrinos.

Part III. Practical consequences of invention (continuation).

- 30 Sophisticated accelerators for particles having values of tens (see hundreds) of velocities of light. Today, for some augmentation of energy of particles (necessary to go into deeper knowledge in Nuclear Physics or for preparation of the radioactive isotopes), one constructs the accelerators having size of tens of kilometers[!], which cost milliards and milliards. But with this "depthness of the science" , one can effectively increase the values

of particle speeds above any dream. It was not the "increased" mass of the particles, that prevented the consecutive acceleration (according to falseness of Theory of Relativity), but principal impossibility to accelerate the particles having the speed value close to that of the light with electric field having the speed value of propagation also approximately equal to that light.

This resulting evident instability and also consecutive periodic vibrations of charges in the field during such movement cannot not to be the sole cause of the synchrotron radiation with the strong particle speeds and the Tcherenkov radiation, because the sole possibility to create the electromagnetic wave is the periodic movement of the charge in electric field, in making.

- 5 Illign sophisticated accelerators instead of old science and technic, saturated because of impasse of false knowledges, costing milliards of milliards. The ROUTINE description of CLASSICAL ancient accelerators of numerous types is very spread in Classical Books of Science and Technic and in Industrial Property [55-58].

- 10 Creation of these effective beams of neutrinos and antineutrinos.

15 Evidently, the best means to create beams of neutral particles is to make interactions of well configurated charged particles (electrons and positrons) with help of magnetic fields (very well described [59,60]), as circular and linear collisioners wherein as result, there is creation of neutrinos and antineutrinos and of the γ -radiation, discovered firstly by me [WO 99/56288, WO 00/52989]. ["Positron monocromatic beams of high intensity and weak energy" (and strong one) are well makable too [59].] Evidently the best direction to

20 neutrinos and antineutrinos are directed in the same direction, wherein the resulting beams of electrons and positrons, moving in the same direction, and well focalized. The dipole (perpendicular to movement), created, at the beginning, during such approachant at parallel movement must produce the vibrations of charges and the electromagnetic waves (one charge in field of another: obligatory condition for wave creation) in directions of movements! This was done de facto in "Device and method to generate the laser radiations of gamma rays" [EP 0715381], wherein the sufficiently routine techniques (almost the same as in [20,21]) was well written with details [EP 0715381, 60, 61]; wherein as result there is "the forward gaser, that is the laser of monochromatic γ -rays, having the energy superior than several MeV and the back monochromatic γ -gaser" with $E = 200$ keV [EP 715381]. According to my original and revolut-

25 ional proofs [WO 99/56288, WO 00/52989], during such interactions of electrons and protons there is the creation of neutrinos and antineutrinos of the same masses [In- stead of the transformation of the masses in energy $E = mc^2$, accepted and established as New Classics by whole world without ANY challenging]. Without doubt according to Mechanics, the strong momentum of movement of electrons and positrons in the directions of the beams cannot change the directions and there is the creation (at the same time) of the beams of neutrinos and antineutrinos according to my discoveries . It means the obtain-

30 ring of the perfect SATURATED beams of neutral neutrinos and antineutrinos is clearly markable and well described.

35 §5. Production of electromagnetic waves, that are shorter than gamma ($<0.002 \text{ \AA}$), never observed and of electric currents of the same frequencies never produced. Direct transformation of electric energy into electromagnetic waves (with efficiency ~100% instead of lamps).

11

But from these new accelerators with values of particle speeds much stronger than those of light, one can produce electromagnetic beams with astronomic frequencies, never observed and never observable!

It is well known that the synchrotrons (rings of the stocking of charged particles) produce the coherent well polarized stable electromagnetic radiation (at values of particle speeds close to those of light), as pulses with duration of 30 psec and interval between pulses of 1 μ sec, wherein this radiation is situated from infrared until X-rays (hard) [63- "synchrotron radiation"] and until γ -rays in the case of betatrons (also synchrotrons in reality) [as EP 0481865, FR 2394621]. This radiation with these frequencies (including the astonishing ones until 1.8×10^{21} Hz) of hard γ -rays) takes place (but with weaker intensity), even without undulators or wigglers, that produce periodic transversal oscillations of the beam (with magnetic field) (but with frequency much! weaker) [63].

Light of Tcherenkov (Carenskoy). These vibrations at very high frequencies take place justly due to relativist instabilities (The "Nobel" LIGHT of TCHERENKOV is of the same nature), when the value of particle speed approaches that of electric field propagation. The electric field, is the pulsations of beginnings of the temporary transformations \hookrightarrow neutrino \Rightarrow electron and antineutrino \Rightarrow positron (for negative and positive charges respectively) without energy dissipation [17,22]. In reality, the value of this speed of propagation of the electric field is some higher than that of light [although also the local transformations but of the transversal wave of neutrinos (antineutrinos) into electrons (positrons)]. This is not the same process although they have (both) the same transformations basically. Tcherenkov effect confirms this; justly when the speed value of the charged particles is situated at the limit of the value of propagation of the electric field. In the medium, the instability of the interactions takes place (and this particle speed value is some more than that of the light in this medium). Justly, these instabilities are transformed into the vibrations of these particles (in all directions relatively its trajectory), which are transformed (in their turn) into the vibrations of electrons (*surrounding*) (in fields of nuclei and other electrons), that radiate the waves of the visible frequencies.

Evidently, in these new accelerators (synchrotrons, rings of storage of charged particles), wherein the analogous "relativist" destabilization takes place with much higher speed values, there is the production of the waves with colossal frequency values, which are much greater than the value of 1.8×10^{21} Hz, never seen. The Lorentz force of interactions of the charged particles is also proportional to their speed value. But one can utilize these beams of the new superfrequent coherent polarized waves (obtained in the 1st time) for production of the electric current with the same impressing frequency. Evidently the intensive light between two charged metallic discs (like of condensator) must change the conductance (resistance) of this condensator and consequently it must change the value of current of the electric chain with this condensator according to simple Ohm law. The deviation (to Sun) of the light at the Sun eclipse (famous Einstein experiment) justly confirms this (but not famous Theory of Relativity): to see definitive absolutely correct physico-mathematical proof of its end: WO 00/52989) and again

WO 03/084301

PCT/IB03/03315

12. at two types of propagations: light (with interchanging variable electric and magnetic fields) and.

electric fields (with frequent periodic fields) [17,22], there are always transformations of the same, neutrinos (antineutrinos) and electrons (positrons) with evident inter-influence. But in order to make the changing of current with propagation of the coherent polarized wave, one must make the slit (or finally a number of periodic slits) in insulator between two condensator discs with size (to of only the half of wavelength space. The direction of polarization of these waves must be perpendicular to the condensator.

One can make such slit with help of yet liquid surface of insulator (melted). In desconding the plate ("carcass" for insulator) in the liquid (that will be fixed on insulator in solid state later) until necessary size of slit. So one could have the electric currents, never produced before (after simple consecutive electric filtration of this current having ultra-frequency).

Evidently these electric currents can produce the powerful electromagnetic waves of all frequencies, including those of the visible light (with help of too simple condensator and induction) 15 like the radio waves. In the case of the visible light this is the lighting of the direct transformation of the energy of electricity into that of light with efficiency ~100%. Instead of several percents with lamps at present. One can utilize these electric currents for technological and scientific purposes like the measurement of the most rapid processes like (justly) the switching of the transformations neutrino \Rightarrow electron during the propagation of electric field.

Evidently, these electromagnetic waves with all their frequencies can be utilized as carrier waves for any radio or tele communication. Certainly, one can choose the perfect conditions without attenuation (practically) of the wave intensity (for instance even through Earth). 20 Examples of routine technologies used in the best patents.

For p.7 (Rev.2). To obtain the strong layers of protecting substances (armour) like layers of cement, steel, lead, copper, cadmium and even a adapting layer of resin epoxy. There is a number of inventions as WO 01/26611, 01/52707, 01/52708, 96136972, EP 757361, FR 2776118, 2790589, 2776118.

For p.7 (Rev. 2). Production of isotopes is well written in a number of patents like WO 01/15177, 01/27477 and EP 1962942. 30 For p.7 (Rev. 3). Creation of elevated and permanent temperatures, one can do it with help of routine technics, clearly described in patients like WO 69769, 01/25152; EP 234450, 404681, 009967; FR 2770648, 2720506, 261622.

For p.10 (Rev. 5, 7). The productions of synchrotron radiation (with its numerous applications [63] like integrated circuits also) are routine technics, described in a number of patents like WO 91/01076, EP 813255, 582193, 531066, 265797, 351956, 481865, FR 2722327, 2607345, 2594621.

13. 17.11. Rev. 2-35 Yuryev

14. 26.11. 1997, p. 269,

15. 13.11. Rojanski, L.S.5]

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[56] Boussard, D. "Les accélérateurs des particules", PUF, Paris, 1984.

[57] Goldsmith, M. & Shaw, E. "Europe's Giant accelerator: Story of CERN 400 GeV proton synchrotron", Taylor and Francis, London, 1977.

[58] Bromley, D.A. "Large electrostatic accelerators", Amsterdam, 1974.

[59] Palmer, R.B. Annu. Rev. Nucl. Part. Sci. 40, 529-592, 1990.

[60] Lerner, R.G. & Trigg, G.L. "Encyclopedia of Physics" 2nd, Ed, VCH Publishers Inc N.Y., 1991 (pp.956-960).

[61] Ikegami, H. Int. J. Quant. Chem. 71, 83-99, 1999.

[62] Ikegami, H. Phys. Rev. Lett. 60, 929, 1988.

[63] 'McGraw-Hill Encyclopedia of Science and Technology' (v.18, "Synchrotron Radiation" pp.102-110), 8th Ed. McGraw Hill, N.Y., 1997.

The confirmative GLOBAL proof of this New Physics.

For such fantastical applications of the reality (finally), after such grandiose changing In Physics, ACCEPTED by all during all XXth century, the proofs are very important.

One cannot imagine the absence of collapse of all massive Universes due to gravitational forces (and absence of accelerated movement in their direction(s) during unlimited time of their existence. And justify such confirmed absence of fields (of gravitation, particularly) in the real vacuum between Universes (without particles like neutrinos and antineutrinos) makes such collapse impossible.

The cosmic "rays" contain only the nuclei of all elements, surely without atoms! (and also electrons and protons) [63, v.4, pp.503-513]. This confirms clearly that there are no neutrinos and antineutrinos between Universes, that destructs the electromagnetic forces and justly eliminates the electrons from atoms. The fact of presence, in these rays, of neutrons and protons (baryons) with neutrinos, antineutrinos, electrons and positrons (leptons), attached in one particle, confirms the presence of weak interactions in the space between Universes, even without neutrinos and antineutrinos.

In the global systematic convergence (by great established facts), one sees the clear confirmation of successive Big Bangs, because the relative abundance of nuclei of elements in cosmic "rays" repeats clearly their universal abundance [63] that that can take place with, justly, the destruction of all cold Universe with all these elements in situ.

And this part of matter (the most rapid after explosion), leaves these Universes justly with titanic speeds of cosmic rays.

with titanic speeds of cosmic rays

[53] Warncke, R.R. "Introduction à l'étude des accélérateurs de particules: physique atomique, physique nucléaire, physique des hautes énergies à l'usage des ingénieurs", Paris, Masson, 1975-1976, vol.1 et 2 (1633 p.).

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with titanic speeds of cosmic rays. And again, there are no electromagnetic interactions of these nuclei (without electrons) having [fantasticall] charges with the substances (on their path) in our Universe: the stronger charged nuclei had to be present in diminished proportions (in proportion Inversely to their fantastical charge!!). Evidently, this can take place only due to velocities greater than those of light.

[58] Bromley, D.A. 'Large electrostatic accelerators', Amsterdam, 1974.

[59] Palmer, R.B. *Annu. Rev. Nucl. Part. Sci.* 40, 529-592, 1990.

[60] Lerner, R.G. & Trigg, G.L. 'Encyclopedia of Physics' 2nd, Ed, VCH Publishers Inc N.Y., 1991 (pp.956-960).

[61] Ikegami, H. *Int. J. Quant. Chem.* 71, 83-99, 1999.

And the strong nuclear forces (in the cosmic nuclei) of short distance are present and without neutrinos and antineutrinos (in space). This is the key for the nature of all forces in Universes with their presence and absence in particular spaces, where one must be well careful in proposing the general conception (postulate) (that is justly too present in nuclear physics and often false). Evidently, even Laws of Newton must be RE-considered in

[62] Ikegami, H. Phys. Rev. Lett. 60, 929, 1988.
 [63] 'McGraw-Hill Encyclopedia of Science and Technology' (v.18,
 'Synchrotron Radiation' pp.102-110), 8th Ed. McGraw Hill, N.Y.,
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of neutrons and protons (baryons) with neutrinos, antineutrinos, electrons and positrons (leptons), attached in one particle, confirms the presence of weak interactions in the space between Universes, even without neutrinos and antineutrinos.

In the global systematic convergence (by great established facts), one sees the clear

confirmation of successive Big Bangs, because the relative abundance of nuclei of elements in cosmic "rays" repeats clearly their universal abundance [63], that that can take place with, justly, the destruction of all cold Universe with all these elements in situ.

Claims.1) Claim:

Claim 1. The most Global and General New Bases of Matter of Universe (carefully proven Physics itself) are characterized by the following characteristics:

5 1). The electromagnetic waves do not leave the Universe (in expansion today) being collected since "The Creation" of Universe ("Our" Big Bang), that takes place because of multiple complete reflections from its borders, behind which there is no (any more) neutrinos and antineutrinos, propagating the light and changing its velocity;

2). The large spectrum (from radio waves till γ -rays) of strong intensities of the diffuse electro-magnetic waves in the Universe of today is due their impossibility to leave the Universe (since Big Bang) according to Claim 1(1).

3). Near the elevated masses (as Black Holes or even Sun) there is the presence of augmented concentrations of neutrinos and antineutrinos (having the electron masses), leading to the "gravitational lenses" due to changing of value of the light speed in these conditions (but not because of Utope of General Theory of Relativity), according to Claim 1(1).

4). The mass of Classical Universe is much stronger than Critical one due to very elevated mass of neutrinos and antineutrinos, wherein Universe Contraction will take place, due to gravitational forces after actual Expansion;

5). 2nd Law of Thermodynamics of permanent global increase of entropy is not correct: light cannot leave the Universe and light concentrations must, even, increase at last phases of the Universe contraction; according to claim 1(1,4).

6). The strong explosion will take place due to very elevated concentrations of electromagnetic waves during Universe Contraction; according to claim 1(5).

7). In "Our" Big Bang, the explosion provoked only the spallation of the heavy elements and, only until hydrogen and helium (and traces of Li-Be-B) and Big Bang (according to Modern Science), described as taking place after particle aggregations or with primordial nucleosynthesis, is profoundly false;

8). Black Holes (constituted of neutrinos), resting after such Big Bang, serve for the Galaxy creation, after rapid currents (that provokes the rotation of stars/luminous matter/ around its center) of the luminous matter, well exploded and lighted one sole time, making the disk of the Galactic plane with eccentric rotations (of stars) like at Solar System;

9). After future shortage of the heavy elements and growing abundance of the neutrino particles after "Our" Big Bang, the Universe contraction (in one of consecutive cycles: explosion of Big Bang and Universe expansion following by Universe contraction and new explosion) must continue without explosion of spallation (weaker) until temperature, when the nuclear reactions (opposed to those of explosion of Supernova stars) of re-utilization already of neutros with neutrinos and antineutrinos (with much stronger explosion) to create electrons, positrons, protons and neutrons, can take place";

10). These cycles of Classical Universe of Claim 1(9) are permanent (it was infinity be-

bore us and there will be infinity after) according to law of closing of its borders for light interacting with law of Universal gravitation according to Claim 1(1, 4 and 5), wherein the cycles with spallation of heavier elements (weaker explosion) of Claim 1(7) (as "Our" Big Bang) are succeeded by those of the nuclear reactions of inversions of titanic explosions of Supernova stars according to Claim 1(9).

11). Titanic cosmic "rays", produced by Other Universes, justly, must be the products (with diapason of speed values, it means with duration of recording times) of the superpowerful explosions, according to Claim 1(9).

12). Such cosmic "rays" (including charged) of claim 1(11) pass easily through well charged Sun (and cosmic objects as Moon), because of absence of mutual electromagnetic interactions, due to their velocities, superior of those of light (it means more rapid than value of fields velocities, that are, *in situ*, dynamic: being nonpermanent but with strong frequencies of the pulses de facto), except the crushing minority of "rays", that knocks the small nuclei of matter on the trajectory directly;

13). The process of radioactivity characterized in that it is not spontaneous (as it is accepted by all), but it is provoked by the direct knocking of the nuclei of matter by cosmic rays with the value of speed superior of that of light according to Claim 1(12).

Claim 2. The consecutive practical process (considering as whole with precise scientific basis of invention) of changing of period of radioactivity (for production of very unstable elements with prices of gold like merdeleum or those with very small periods of lifetime) characterized in, that one diminishes (for instance, in putting, very simply, the thick layers of very dense elements (substances) or matter of neutrino particles, that are the most dense in Universe) the knocking of nuclei of matter by cosmic "rays", according to Claim 1.

14). Claim 3. The process of the creation of extrastrong stable temperatures in "the chamber", never obtained on Earth, characterized in that one creates the general conditions of Big Bang (in eliminating neutrinos and antineutrinos around the volume [with (already) radiation and high temperature] with help of intensive irradiation of γ -rays and magnetic fields and in diminishing largely this volume) according to Claim 1.

15). Claim 4. The process of interaction of particles, having higher velocity than that of light (like cosmic "rays") with the substance is characterized in that with increasing of concentration of neutrinos and/or antineutrinos near this substance, one increases the velocity of electro-magnetic fields according to Claim 1(1, 3, 12).

Claim 5. The process of great acceleration of particles in accelerators with help of increasing of velocities of propagation of electric and magnetic fields according to Claim 4 is characterized in that one increases the concentrations of neutrinos and/or antineutrinos in electric and magnetic (directing) fields of the accelerators with help of beams of neutral particles.

5 Claim 6. The device to have the beams of neutrinos and/or antineutrinos according to

Claim 5 is characterized in that one put the 2 charged beams (well focusable and dirigible) (preferably saturated) of electrons and positrons in the same direction for their meetings in obtaining, as result, the beams of neutrinos and antineutrinos directly forward (and behind).

Claim 7. The new accelerators of Claim 4 (synchrotrons primary) are characterized in that they produce also the coherent and polarized radiation (of synchrotron primary) with (also)

waves shorter than γ -waves ($<1.8 \times 10^{21}$ Hz), never observed and created.

Claim 8. Utilization of electro-magnetic waves of ultra-great frequencies of Claim 7, characterized in that they help to produce electric current by new universal means (serving also for all waves, naturally) with the same frequency with help of condensator (in simple electric circuit) having (between its disks) the insulator with the slit (or several periodic ones) of size of half of length of wave (that is coherent and polarized in direction perpendicular to condensator disks), that guarantee the electric current (strong also), variable and of the same frequency, that can produce directly (in turn) the electro-magnetic waves (like in classical transmitter of radio waves).

Ultra-rapid movement of Physics propagates too rapidly and surely after end of Einstein-Bohr one (WO 99156288; WO 00152989; PCT Gazette 04/2001. Search Report) by established great rocks, of experimental Science (although separated and contradictory). It is proven that contrary to 2nd. Law of Thermodynamics, all radiation of all electromagnetic spectrum does not leave the Universe and collects since its "Creation" ("Our" Big Bang), that takes place due to multiple complete reflections from its borders, behind which there is no neutrinos, propagating the light, that (neutrino's elevated concentration) resolves also the "gravitational lenses" near the colossal masses. Being cause of the mass of Classical Universe much more stronger than critic one (due to elevated masses of omnipresent neutrinos), there is the contraction of Universe (after obligatory end of its expansion) with gigantic concentration of all light, that provokes explosion. In "Our" Big Bang, the explosion provokes only brisure of heavier elements until hydrogen (and helium) in lighting (one sole time) the reaction of synthesis of stars wherein the proportion of original helium (and apparent age) were dependent on site of origin of mass of star. Black Holes (composed of neutrino's resting after such Big Bang, serve for creation of galaxies, after rapid currents of exploded and lighted luminous matter, making disk of Galactic plane with rotation like in Solar System. In case if the heavier elements will not remain (almost) in Universe, contraction of Universe must continue and different Big Bang will take place, that is much stronger with re-utilization already of neutrinos and neutrinos and antineutrinos to create electrons, positrons, protons and neutrons, that will take place in one of successive Big Bangs and that is, already, confirmed by justly, presence of Universes with cosmic rays with titanic energy (that we do not have yet). These charged cosmic "rays" (like protons) pass too easily through charged Sun (and objects like Moon), confirming indisputably the madness of evidence of their speed, much greater than that of light without interaction with charges by fields. Radioactivity is direct knocking of extrarapid cosmic "rays" with nuclei. Practical consequences: creation of stable temperatures, changing of periods of radioactivity, process of electromagnetic interaction of particles with overlight speeds with substances, accelerators producing particles with ARCHI-speeds, waves with archi-frequencies (more que that of γ rays), electric currents with colossal frequencies, direct transformation (with maximal efficacy) of electric energy into that of light.

U/IU Acoustics Lab
Y. J. Kim

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Also, "Acoustics of plain" seems fine, if
that's what they are and we're ~~not~~.

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